DOCUMENT RESUME

ED 173 319 SP 014 380

AUTHOR	Erickson, Frederick
TITLE	On Standards of Descriptive Validity in Studies of Classroom Activity. Occasional Paper No. 16.
INSTITUTION	Michigan State Univ., East Lansing. Inst. for Research on Teaching.
SPONS AGENCY	National Inst. of Education (DHEW), Washington, D.C.
PUB DATE	Mar 79
CONTRACT	400-76-0073
NOTE	32p.
AVAILABLE FROM	Institute for Research on Teaching, College of Education, Michigan State University, 252 Erickson Hall, East Lansing, Michigan 48824 ($2.00)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	*Classroom Observation Techniques; *Classroom Research; *Communication Skills; *Interaction Process Analysis; Student Behavior; Teacher Behavior
IDENTIFIERS	*Descriptive Validity

ABSTRACT

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ED173319

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ON STANDARDS OF DESCRIPTIVE VALIDITY IN STUDIES OF CLASSROOM ACTIVITY

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Published By

The Institute for Research on Teaching
252 Erickson Hall
Michigan State University
East Lansing, Michigan 48824

March 1979

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NATIONAL INSTITUTE OF EDUCATION

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SP 014 380

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Abstract

The author argues here that progress toward greater validity in description through increasingly specifiable standards for quality control is crucial for the advancement of theory as well as for the improvement of method in descriptive studies of classroom life. Some standards for judging the validity of descriptions of classroom action are proposed and examples of descriptions are presented. The role of the external memory of an audiovisual record is briefly reviewed.

On Standards of Descriptive Validity in Studies of Classroom Activity[1]

Frederick Erickson[2]

This paper was originally entitled "The Communication of Social Meaning in Subject Matter Instruction." I changed the title, however, because the *social meaning* I am especially concerned with is that which is local and situational; it is meaning in the context of the moment at hand, from the actors' points of view. Discovery of such meanings of the moment, I believe, can lead to an appropriate data language for the description of classroom life. At the end of this paper I present an attempt at such a description in a narrative account which emphasizes the meanings primarily from a teacher's point of view.

My colleagues and I learned about teachers' points of view through a combination of participant observation and close analysis of videotape.[3] An even better account of classroom interaction than the one I will present

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[1]Paper originally presented at the annual meeting of the American Educational Research Association, Toronto, March 1978.

[2]Frederick Erickson is a senior researcher at the Institute for Research on Teaching. At the time this paper was written, he was an associate professor of education at Harvard University.

[3]The classroom description presented in this paper is based on a videotape made in a study supported by the Spencer Foundation and the National Institute of Mental Health. Collaborators in the research were Jeffrey Shultz, Susan Florio, Donald Dorr-Bremme and "Miss Wright," the classroom teacher identified in the paper pseudonymously. She was the "observant participant" in our research group. Her critical and interpretive comments on the initial draft of the classroom description presented here were especially helpful in the preparation of this paper. The assistance of all the collaborators is gratefully acknowledged.

here would describe the action from the points of view of students as well as from those of the teacher. But that would also be more complicated. Very little work has yet been done that deals systematically with the issues I am raising here as central and essential for the conduct of an inquiry into classroom processes, despite the scale and duration of the classroom interaction research enterprise (see, for example, the reviews in Dunkin & Biddle, 1974, chapters 9 & 10.) It may prove useful, therefore, to present in this paper a classroom description which, even though inadequate, does highlight some of the complexities involved in constructing adequate narrative accounts of classroom interaction. I will argue that not just any descriptive account is adequate or valid, and that descriptive adequacy and validity is not entirely relative, i.e., simply a matter of the researchers' preferred taste in scientific theory, esthetics, and politics.

Accordingly, this paper first raises some issues of method. These are then illustrated by examples of differing kinds of narrative description. The paper concludes with a brief discussion of methodological implications.

The Issue of Descriptive Validity

"What is involved, when we say what people are doing and why they are doing it?" (Burke, 1969, p. xv). I contend that narrative description of social relations contains within itself a theory of the events it describes; that no description is *mere* description. Moreover, I believe that the *validity of the theory embedded in description*, especially at the level of the "protocol narrative," "anecdotal record," "written-up field notes," or other primary data source, is a crucial reality issue in classroom descriptive research and in educational research, generally. It is an issue of "reality control," which is also one of "quality control."

The problem of descriptive validity is central in those approaches to classroom research which are labeled variously as "ethnographic," "naturalistic description," "fieldwork" or "field studies," "case studies," "phenomenological," "symbolic interactionist," "ethological," "ecological," "micro-ethnographic" (Smith & Geoffrey, 1968), "constructivist" studies (Magoon, 1977), and -- most recently -- "constitutive ethnography" (Mehan, 1978).

The strength of narrative description is its potential for high validity, even though it may be low (to the level of zero) in reliability. But some narrative description may be low in validity, too, for description is no philosopher's stone with which, in some magical alchemy, two elements -- sensitive but entirely "unsystematic intuitions" (unsystematizable ones) and the ability to write good prose -- are combined to produce insights into the nature of the events described -- insights which are invariably "true," or "relevant," or "useful." There is a history of concern in naturalistically descriptive research about the issue of descriptive validity (see Becker, 1958; Pelto & Pelto, 1977). Beneath what may seem a surface spontaneity, in the absence of predetermined formal hypotheses and predetermined operational definitions of evidence, competent narrative description based on participant observation is a highly structured and systematic enterprise involving rules of evidence and inference which guide the sifting of data and interpretation. This research process requires skill in making rigorous, consistent judgments; a skill analogous to that of the professional critic of the arts (Eisner, 1976). As in musical or literary criticism, the ability to make these judgments validly and consistently is not learned by wish overnight. (And among professional critics the absence of validity in criticism cannot simply be covered over by journalistic flair. The incompetent

critic of an art form can eventually be caught out; so can the practitioner of invalid description in educational research.)

Validity is a key issue in scientific research, whatever the method. And in descriptive research, while it may be desirable to take more care in demonstrating *reliability* than many "qualitative" researchers have done, it is the issue of *validity* which is primary. It is logically prior and must be addressed first in an empirical inquiry. As descriptive *validity* increases, the difficulty of demonstrating inter-rater *reliability* decreases. But it does not work the other way around -- it is a fallacy to assume that the demonstration of *reliability* within and across observers somehow will contribute necessarily to increased *validity* in descriptive accounts.

Nor does descriptive *richness* necessarily contribute to validity. Description can be rich and invalid. A perfect example is Jonathan Kozol's (1967) *Death at an Early Age*.

I believe that the chief value of description for classroom research does *not* lie essentially in its "richness" nor in its capacity to evoke in us a vivid sense of "being there." Nor does the "discovery of new independent and dependent variables," in itself, get us anywhere, necessarily. Before classroom research can proceed further, researchers need languages of description at the level of primary data collection which make contact with the theories of action that are being used in moment-to-moment decision making by participants in the events they observe and describe.

I maintain that the issue of descriptive validity is essentially (although not exclusively) one of *functional relevance*, from the actors' points of view (see Erickson, 1977, and Hymes, 1977, for elaboration). In Kozol's (1967) description, it is precisely the actors' points of

view that are left out of his account. This does not mean that the actors' point of view is the only thing to be considered. Actors may be misguided -- their consciousness may be false and their intuitions flawed. But valid accounts of their action must at least *make contact* with their points of view, even though a critical stance may still be maintained.

To put it another way, what we are lacking is an adequate theory of *classroom social life as the primary environment of classroom learning*; of qualitatively differing kinds of task environments; of kinds of time on kinds of tasks. Our language of description -- our vocabulary and syntax of description -- is based on inadequate task analysis (see Orasanu, McDermott, Boykin, & the Laboratory of Comparative Human Cognition, 1977). It is based on an analysis largely limited to what *a priori* is "intuitively obvious" to researchers about classroom life, and by what Pottinger (1977) calls the "tyranny of reliability" in standard approaches to educational research.

The problem is not the *elimination of bias* in description, for all description is done in terms of a point of view. Rather the problem is the *selection of bias* -- or theoretical frame -- appropriate to the research problems at hand. It is not only writers like Kozol who can be faulted on these grounds. Most standard ways of describing classroom interaction, by means of interaction codes as well as by the narrative description found in field studies (see Mehan, 1978, and Doyle, 1978, for relevant reviews) are grounded in singularly inadequate theory of the nature of social relations in everyday life.

If I am correct in asserting (with Gearing & Sangree, in press) that human learning is always mediated in social relationships, that

pedagogy is conjoint social action, that all face-to-face "content instruction" has *social* as well as *referential* meaning (and by extension that no curriculum package or classroom can possibly be "teacher proof" or "student proof"), then a more differentiated and dynamic theory of face-to-face social relations is crucial for classroom research.

This, then, is why descriptive validity is so important in classroom research: The theory entailed in a description of a connected sequence of events across time is in essence a theory of its social organization; of the social statuses of participants in the event and of the distribution among the participants of rights and obligations for social action (i.e., the distribution of roles and role "sets" or "relationships"). While descriptions may or may not also entail theories of psychic processes within individuals -- theories of motivation, temperament, learning or cognitive stage -- descriptions of events involving the actions of more than one individual, I maintain, *always* entail theory about the organization of social relations.

The theory of social organization entailed in description is embedded in the key terms and relations contained in the description; in the very nouns and adjectives chosen as labels for the cast of characters (statuses), and in the verbs and adverbs chosen as labels for the kinds of actions those characters perform together (roles). Such theory is also embedded in the descriptive syntax accounting for sequence relationships among the actions, in the points of functional climax or "crisis" identified in those sequences, and in the terms indicating standards for judgment of the social appropriateness of those actions.[4]

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[4]An analogous framework is that of Burke's (1969) "dramatistic pentad": Act, Scene, Agent, Agency, Purpose.

Dialectically, researchers need to develop better theory in their descriptions as well as better descriptive "grounding" for their theories. If researchers are ever to discover means of accounting for the ways in which everyday life in a classroom constitutes a task environment -- and how content instruction has metaphoric social meaning as well as literal *referential* meaning -- they need to be able to describe action sequences within and across classroom events in ways which are rigorous and yet which also make contact with the "locally situated" meanings and purposes of the participants in the events (Mehan & Wood 1975), including (1) the purposes the participants are trying to accomplish in a particular event (such as a lesson), (2) their definitions of who they are as social persons in the event, and (3) their expectations for how they and others should and will act in such events.[5] We must take into account participants' theories of action if we are to construct an adequate theory of the social organization of learning environments.

In short (and in a slightly different theoretical frame), categories of description and inference in a valid narrative account of action must

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[5]This statement presupposes a key theoretical assumption -- that participants' "local" intentions, definitions of role and status, and standards for judging appropriateness *are analytically discoverable through close analysis of the structure of their interaction face-to-face*, by taking account of what the participants themselves pay attention to, treat as "natural", react to as inappropriate etc. The assumption is that people engaged in face-to-face interaction are constantly telling each other verbally and nonverbally *what is going on*, what the "rules" are, and what the "context" is -- and that careful analysis of their "telling" can elucidate their underlying purposes and rules of procedure. Statements of such regularities, then, would not just be an arbitrary construction of the researcher, but would actually make contact with the points of view of those involved in the action. See Erickson & Shultz, 1977; Gumperz, 1976; Gumperz & Herasimchuk, 1972; McDermott, Note 1; Mehan & Wood, 1975: Ch. 6.

make contact with the cultures of the participants, as culture is defined in cognitive terms by Goodenough (1971): "A system of standards for perceiving, believing, evaluating, and acting" (p. 41). Valid description is that which in its vocabulary and syntax takes into account and clarifies *the social and cultural organization constituting the action being taken in the events being described.*

Illustrative Examples

I will illustrate some standards for descriptive validity and their application in critical analysis of descriptive accounts by presenting and comparing examples of invalid and valid ways of describing events. The invalid ways will not make contact with the "locally situated" points of view of actors in the events described. There are two main examples: a portion of the story of Oedipus, and a description of a first-grade mathematics lesson. The issue of "fast action" narrative will also be raised. It will be illustrated by considering a football announcer's language of description and its implicit descriptive theory.

A Story of Oedipus

"A young man was walking along a road, when he met an older man who picked a quarrel with him. The young man killed the older man. Then he went to the city of Thebes and put his eyes out, blinding himself."

According to my proposed criteria of validity this description is invalid on at least three counts. First, it leaves out key units of action and connections of sequence relationship -- that Oedipus, after having gotten to Thebes, solved the riddle of the Sphinx, and, after that, married the widowed queen of the city. Second, it leaves out a critical turning point: Oedipus' discovery that the woman he married

was his mother and the man he killed was his father. Third, by leaving out that penultimate climax of discovery in the action, the ultimate climax of Oedipus' blinding himself makes no sense. From the invalid description, the reader learns nothing of Oedipus' sudden change in point of view, which in sociological or anthropological terms involved redefinition of social identity (status) and of rights and obligations (role) in a more complex and differentiated way.

The locally-situated meanings were not so simple as they had seemed at first. The older, cantankerous man was not just any man, but his father. The woman was not just the queen but his mother. Oedipus had not just killed and married but had committed patricide and incest. These were horrible crimes punishable by the gods. The awful realization -- those new ways of thinking about who the people were and what their actions had been -- filled Oedipus with anguish and remorse. It was in the context of that remorse that he then blinded himself, never to look again on a world of false appearances.

"Fast Action" Narrative

Classroom life, especially in instructional events, involves action which takes place much faster than that of Greek tragedy. Part of the problem of descriptive validity in classroom research involves a narrative language which can account for sequences of rapid interaction. A useful analog is that of the sports announcer on radio. In such announcing, rapid action is accounted for, but in descriptively valid ways. The vocabulary and syntax of description emphasizes the salient

purposes, action-sequence relationships, and categories of social identity and role which are locally situated -- relevant to those involved in the action; e.g., the football announcer uses such game-relevant terms as center, quarterback, pass-receiver, pass. At appropriate moments in sequences of action, the football announcer's narrative also points to salient aspects of the context of action: "Second and nine on the Spartans' 15 yard line." Teleology and points of sequential climax in the action are also clear: fumble, completion, interception.

The football announcer would not begin the description of this way: "A man is crouched forward and a second man stands behind him with his hand in the first man's crotch. Then the second man stands erect raising his arm in a gesture of fear. His forearm cocks back at an angle of 32 degrees from the vertical . . ."

While the announcer's narrative would not be especially rich or "thick" descriptively, it would still be valid (on the metaphor of "thickness" in description, see Geertz, 1973). It would derive from an adequate functional theory of the game as a whole. Rich description, in itself, could focus on functionally irrelevant attributes of the game. One could know very little about the game and describe it richly; one must know a great deal about the game to describe it validly. (See Bremme, Note 2; Bremme & Erickson, 1977; Cook-Gumperz & Corsaro, Note 3; Erickson, 1977; Erickson & Shultz, 1977; Florio, Note 4; Hymes, 1977; Hymes, Note 5; Mehan, 1978; McDermott, Note 1; Philips, 1972; Shultz & Florio, Note 6; VanNess, Note 7; and Wittgenstein, 1958, sections 31, 562, 563, 546.)

> But how can I decide what is an essential and what is an inessential, accidental, feature of the notation? Is there some reality lying behind the notation which shapes its grammar?...Let us say that the meaning of a piece is its role in the game...So I am inclined to distinguish between the essential and the inessential in a game too. The game, one would like to say, has not only rules but also a point. (Wittgenstein, 1958, sections 562, 563, 564)

Mathematics Lesson[6]

It was the third day of school in Miss Wright's classroom. Right before lunch the kindergartners went home and the first graders stayed. After lunch the first graders had reading seatwork It lasted longer than usual, leaving time only for a short, "hands on" math lesson.

It was the first math lesson for the first graders that year. One of the teacher's purposes was to introduce the concepts "set" and "set properties" to two "new" first graders (i.e., students who hadn't been in kindergarten with Miss Wright here the year before, as had the other students). For the "old" first graders a purpose was to review the concepts "set" and "set properties." For all the first graders, old and new, further purposes were to introduce the new concept "intersecting set," and to introduce the social format of the "hands on" math lesson itself, showing the children by doing such a lesson what happened in it and what were appropriate ways of acting in it. So this first math lesson of the year was a "shakedown cruise" in which the children, together with the teacher, would encounter and enact simultaneously a cognitive task environment and a social task environment.

As the students were finishing up their reading seatwork Miss Wright began to set up what she needed for the lesson to come. She

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[6]This story of a "hands on" mathematics lesson in a kindergarten first-grade classroom is an attempt at an account of an overall sequence of action in one lesson. It is a description outlining the classically "tragic" overall action-shape, or "career" -- rise - crisis-decent -- combined with an account of some of the salient fast action in a moment-to-moment narrative style reminiscent of the football announcer.

went to her desk and got three cloth bags of wooden blocks. Each bag had in it blocks of the same color but of differing shapes, sizes, and thicknesses.

Miss Wright took the bags of blocks to the circle area and dropped them there, where some children were already sitting. Then she went back to her desk, picked up a ball of rope and a pair of scissors, and brought them over to the circle.

(Here, I will skip over the rest of the setup section of the lesson and go to the beginning of the focused part of the lesson -- the "main event" within it. I emphasize especially the second phase of that focused section in which the teacher is leading up to the concept of "intersecting sets.")

After Miss Wright had sat down on the floor and called the children to order three times, they stopped being so squirrely. The circle seating formation was in place and the focused part of the lesson began. The teacher reviewed the concept "set properties" by means of two series of "interrogative sequences" (Bellack, 1966) or "interrogative rounds." At the beginning of each round in the first series, she held up a block and said, "What is the property of this block?" At the beginning of each round in the second series, she held up two blocks at a time. By then the children were all leaning forward into the circle, except for Maureen, who was new to the class this year, and Vito, who was the poorest reader of the boys. (You have to keep after Vito.)

The second phase within the focused part of the lesson began when the teacher tied a knot in one of the lengths of rope to make it into a ring. She leaned forward and held it up in ring shape, just as she had done with the blocks at the beginning of each round in the previous phase of the lesson. As she raised the rope in front of her, Miss Wright

leaned forward and the children hunched in closer, while she explained what would happen next:

"I'm gonna make a LOOP or a RING . . ."

(she holds up the rope)

"I'm gonna put the ring around the . . ."

(here she/drops/the ring deliberately on the floor before her, in a circle shape)

"Now I'm going to give each set a PROPERTY. . ."

(she looks across the circle at Gina)

"I want you, Gina . . ."

(here Miss Wright plops down the second of the rope rings next to the first, in front of Gina)

"to make a set of the yellow blocks."

(Gina is the top reader of the "old" first graders. She can be counted on to give a correct answer when the teacher needs one.)

(Gina puts four yellow blocks inside the rope ring)

"GOOD!"

(This was the first time in the lesson that Miss Wright had evaluated a student's response explicitly in words.)

(Miss Wright holds up a green block and looking at Gina, says . . .)

"Can I put this in THAT set?"

(here she is pointing with the green block to the yellow set)

"NOOO!"

(the children chorus in unison and Vito, sitting on the teacher's left starts to rock slightly back and forth while sitting, looking "off into space" over the students' heads. He's "out" after the group has answered.)

(The teacher looks away from Gina around to Vito.)

"Why not?"

(Vito is still rocking.)

". . . Vito"

(falling intonation signalling an imperative);

(Vito stops rocking and answers. He's back in.)

(There were two more rounds in which children made sets inside the rope rings. Then Miss Wright sat up for a moment and smiled, and leaned forward again, picking up the blocks and starting to rearrange them.)

"NOW I want to make a set . . ."

(The children have hunched in still further. Carol has gotten down on her stomach. She crawls closer, inside the "circle" perimeter.)

"HERE . . ."

(Miss Wright points to the rope ring closest to Eddie)

"of the yellow blocks . . and make a set HERE . .

(she /points/ to the other ring)

"of the triangles."

(Mary, a child from the side of the circle opposite Eddie, works on the sets and so does Eddie. Gradually he takes over the sorting work from Mary and becomes the /focal student/ in the /interrogative round.)

(Eddie is one of the top readers among the boys, and he is sitting close to the rings. Not only that but he is the teacher's favorite boy -- a rapscallion who you have to keep "in" or he goes "out" -- and he is one of the researchers' "target" children. He is also wearing the researchers' radio microphone at the moment. So the teacher lets him take over the round from Mary.)

The teacher got Eddie to move the yellow triangles back and forth between the "yellow" ring and the "triangles" ring. She asked the children to review the two properties they were dealing with, and they answered in chorus, "SHAPE!" "COLOR!" Vito by this time had moved around and sat up in order to see better. The children were hunched in tightly now. Miss Wright was ready to loop one ring over the other to illustrate the concept of "intersecting set." That would be the climax of the lesson.

Just then, from the hallway, came a piercing screech from a delivery cart's wheels needing oil. A delivery was being made just as school was ending. (Miss Wright's classroom is right next to the delivery entrance for this wing of the school, and there is no door on her classroom. The old one needed to be replaced and a new one had been ordered in the summer but it hadn't arrived yet.) Vito instantly turned around to look, Eddie looked next, and then most of the other children looked around to the doorway. Miss Wright said, "Let's look here!", pointing to the rings in the center of the circle. Eddie looked back, but Vito did not. "Vito, pay attention . . ." (he turned and looked at the rings) "this is important." Miss Wright then asked Eddie to recall the term "intersecting set" and this brought the lesson back into focus for a few moments.

But it was really too late for intersecting sets at that point. The moment the whole lesson had built toward was gone, and most of the children were squirrely again. Miss Wright wrapped up the lesson quickly and told the children they would do more with intersecting sets on the next day. Then, it was time for the first graders to go home.

Discussion

In the preceding example I have tried to present a description which accounts for both content instruction and classroom management, showing how content instruction has social meaning as well as referential or cognitive meaning. The description illustrates how both social and referential meaning are locally situated in the action itself. For example, the teacher's first calling on Vito by name functioned strategically in that context both as a *request for a content answer* and as a *directive to pay attention* (possibly also as a *reprimand* for not having been paying attention).[7]

The description was not only an attempt to take account of rapid-fire sequence relationships (as in the example of calling on Vito), but it was also an attempt to describe in long range the overall interactional shape of the lesson -- its "career" as an event or occasion -- and to emphasize the points of climax or crisis along that career. The climax of the *intersecting set*, for example, was a climax "damaged" by the sudden noise from the hallway, and thus needing instant interactional "repair" by the teacher.

Nor was this description intended only to shed light on behavioral regularities (such as the apparent rule,"If you haven't previously been paying attention and the teacher suddenly asks you a content question in an intonationally *pointed* or *marked* way, that constitutes a "directive rebuke," or the apparent rule, "After the *setup* phase of the lesson follows a phase of *focused instruction* and at the juncture between the two phases your role as a student takes on a new facet: the obligation to stop

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[7] Here the sequential context of the action is key in the interpretation of the social/referential meaning of the teacher's question, for if Vito had been paying active attention, even though he was one of the poorest students academically, we would not infer that the teacher's calling on him functioned as a directive (or reprimand) in addition to serving as a request for a "content" answer.

being squirrely and pay attention manifestly"). It was also an attempt to elucidate the strategic purposes toward which the behavioral regularities tend, recalling Wittgensteins's (1958) dictum, "The game has not only rules, but a point" (section 564).

There are a number of difficulties involved in trying to do all this in a narrative description, or in any other form of primary narrative data source, such as an analytic chart or a series of flow diagrams.

First, there is the *speed of relevant action*. Things happen so fast in instructional episodes that it is easy to leave crucial features out of the description. This is not so much of a problem for the football announcer, for he already has a valid action theory to account for the action being described -- a valid theory which shapes his description. But students of classroom interaction have not yet developed valid theories of classroom action, so the speed of the action is a troublesome problem in description.

Second, there is the problem of *simultaneity of relevant action*, a problem which is even more troublesome than the first. Not only is classroom action rapid, but socially significant features of the action -- verbal and nonverbal, communicative "moves" which classroom participants can be seen to be attending to and holding one another accountable for -- occur at the same instant in time. Verbal action by the speaker(s) and nonverbal reaction or accompanying action by the listener(s) (e.g., gaze, postural positioning, fidgeting) often happen simultaneously within the classroom group; so, too, within a single individual's communicative performance, semantically significant nonverbal behavior (such as leaning or pointing or gazing at a particular addressed listener) may simultaneously occur with speech. It is extremely difficult to record

simultaneously these co-occurring phenomena by means of running narrative field notes alone, and to report them adequately in an edited narrative description. Notice that in the classroom narrative example it was necessary to adopt the stylistically clumsy convention of *while*: "While the teacher did X, the students were doing Y and Z."

Because of the speed and the simultaneity of classroom action, it is useful to supplement field notes with a machine recording of the classroom life being described -- either an audiotape or an audiovisual record, such as videotape or sound cinema film. The audiovisual record is prefereable to the audio record alone because of the strategic significance of nonverbal behavior in classroom action -- behavior which can only be captured through visual documentation.

The audiovisual record functions as an "external memory" (Mehan, 1978), permitting the retrieval of information which would be impossible to account for fully in field notes. If the *function categories* in the action were unclear due to simultaneity or speed of action, the external memory could be searched for the behavioral evidence that provided grounds for the function categories assigned to segments of action in the narrative description.

This is precisely what the contemporary television football announcer is able to do that his radio broadcast counterpart can not. Today the television commentator possesses the technology for showing an instant replay. It is when *descriptive validity* is at stake -- when the assignment of function classes to sequential segments of the narrative is problematic -- that the announcer's use of the instant replay can be crucial. Was the pass <u>completed</u> or was it a <u>fumble</u>? The instant replay can help resolve the ambiguity and increase the validity of the

descriptive account. The instant replay capability also opens up the possibility of demonstrating *reliability* in description, for the announcer can share the evidentiary grounds for his descriptive judgment with many viewers. And descriptive *reliability* is indeed desirable in the interest of showing plausibility in judgment, even though as I have argued, descriptive *validity* is the logically antecedent problem in the construction of an adequate descriptive language.

The instant replay can be thought of as a "folk" means of demonstrating validity and reliability in description. In classroom research, the external memory of an audiovisual record, together with the running notes obtained as a participant observer, provide the researcher with the same evidentiary resource the television football announcer has in the instant replay. The audiovisual record and replay capability provide the qualitative researcher an opportunity to make the data base public. Researchers are able to share the evidence with the teachers they study, working with them as full partners in research (see Florio & Walsh, Note 8). Such a democratizing of the research process is desirable on both substantive and ethical grounds (see Hymes, 1974).

Primary evidence can also be shared with other researchers. In the process of this sharing, descriptive research becomes no longer a matter of strictly private judgment and opinion. The epithets "mere journalism" or "fiction" may still be flung, but they can no longer stick, for the grounds of evidence can be made clear in the arena of public knowledge. The claims made in descriptive statements can be *disconfirmed*, at least at the level of inference involved in the language of primary data collection. The propositions involved in descriptive accounts are no longer incorrigible ones (and the incorrigibility of narrative

description as reported in field studies has been a serious problem up to now, especially for educational researchers trained in a tradition of positivism in scientific research). The capacity for instant replay opens up the possibility of interactional research which is not positivistic, yet is still rigorously empirical.

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